

GANESH INSTITUTE OF ENGINEERING AND TECHNOLOGY, POLYTECHNIC

DEPARTMENT OF ELECTRICAL ENGINEERING

Er. NIGAM PRASAD BALIARSINGH

LESSON PLAN CUM PROGRESS REPORT

SUBJECT: ELECTRICAL ESTIMATION AND CONTRACTING			SEMESTER: 4TH				BRANCH: ELECTRICAL ENGINEERING		
LECTURE NO.	CO	BTL	TOPIC TO BE COVERED	BOOK NAME./CHAPT. NO./PAGE NO.	WEB REFERENCE IF ANY	TEACHING/LEARNING METHOD	PLAN DATE	ACTION DATE	REVIEW BY HOD
1	1	2	Electric Installation And Safety Scope and features of National electric code 2011	Electrical Installation & Estimating by J B Gupta	https://youtu.be/rBp2BsrYOPA?si=kF_r_J8bLVPLrcEL	1-Introduction to EIE-5 min 2-Prerequisites for EIE-PPT/Smart board-10 min 3-Syllabus & CO discussion-10 min 4-Lecturer-35 min	03-01-2026		
2	1	1	Types of electrical installation	Surjit singh, Dhanapat ray Page no.24.3	https://youtu.be/A1cLR9Mm82s?si=qEJsINi-vKCwYNeL	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	05-01-2026		
3	1	3	Fundamentals principles for electrical installation	Surjit singh, Dhanapat ray Page no.24.3	https://youtu.be/WDdq7dPgsR4?si=0nD1iXwy6BB3BAj-	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	06-01-2026		
4	1	3	Continuation of General conditions 68,	Surjit singh, Dhanapat ray Page no.24.4	https://youtu.be/TWaC4Rj3x9A?si=o_h5LrSQWoD1huf-	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	07-01-2026		
5	1	2	Permit to work, safety instructions and safety practices	Surjit singh, Dhanapat ray Page no.24.5	https://youtu.be/TWaC4Rj3x9A?si=o_h5LrSQWoD1huf-	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	08-01-2026		
6	1	2	Purpose of estimating and costing	Surjit singh, Dhanapat ray Page no.20.1	https://youtu.be/PaaUwwLR0v8?si=8uJbGa3Ct9GkabFW	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min			
7	1	3	Estimation and costing	Surjit singh, Dhanapat ray Page no.20.2	https://youtu.be/k3JPMBxXqWM?si=J2bag9JxBnTfprIW	1-Previous class topic Review-5 min 2- PPT/Smart board-15 min 2-Lecturer-30 min 3-Doubts & Assignment-10 min	10-01-2026		
8	1	2	Meaning and purpose of Rough estimate	Surjit singh, Dhanapat ray Page no.20.3	https://youtu.be/wUnoTjJDHJY?si=oPi6VMiBm23_JrSX	1-Previous class topic Review-5 min 2- PPT/Smart board-15 min 3-Lecturer- 4-Doubts & Assignment-10 min	11-01-2026		
9	1	3	Supplementary estimate	Surjit singh, Dhanapat ray Page no.20.4	https://youtu.be/eGU0Jdv8y-o?si=HlpOubhbumTobsXv	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	12-01-2026		

10	1	1	Annual maintenance estimate and revised estimate	Surjit singh,Dhanapat ray Page no.21.3	https://youtu.be/xGPGrs-k6eo?si=saMg-FXAthlveuaj	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	13-01-2026		
LECTURENO.	CO	BTL	TOPIC TO BE COVERED		WEBREFERENCEIFANY	TEACHINGLEARNINGMETHOD		ACTION DATE	REVIEW BY HOD
11			Factors to be considered while preparation of detailed	Surjit singh,Dhanapat ray Page no.21.11	https://youtu.be/eCFtK9fWnEY?si=BB9g4bCnXWT17xxx	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	14-01-2026		
12	5	1	Contracts	Surjit singh,Dhanapat ray Page no.21.14	https://youtu.be/7mjp8SCCbdI?si=qx_QTloHAMMUMdfj	1-Previous class topic Review-5 min 2- PPT/Smart board-15 min 3-Lecturer-30 4-Doubts & Assignment-10 min	PLA N		
13	5	2	Concepts of contracts	Surjit singh,Dhanapat ray Page no.21.12	https://youtu.be/25SGhgPSGH0?si=fQ53c3StU7ldadGi	1-Previous class topic Review-5 min 2-Lecturer-45 3-Doubts & Assignment-10 min	DAT E		
14	5	2	Types of contracts	Surjit singh,Dhanapat ray Page no.22.17	https://youtu.be/25SGhgPSGH0?si=fQ53c3StU7ldadGi	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	17-01-2026		
15	4	2	contractor	Surjit singh,Dhanapat ray Page no.22.19	https://youtu.be/SRP3K7wBzLY?si=9w2_gEDrOnZ9YwO	1-Previous class topic Review-5 min 2- PPT/Smart board-15 min 3-Lecturer- 4-Doubts & Assignment-10 min	18-01-2026		
16	5	1	Role of contractor	Surjit singh,Dhanapat ray Page no.22.21	https://www.youtube.com/results?search_query=Insulators, Semiconductors and Conductors	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	19-01-2026		
17	5	1	Tenders and quotations	Surjit singh,Dhanapat ray Page no.20.1	https://www.youtube.com/results?search_query=Semiconductor Materials	1-Previous class topic Review-5 min 2- PPT/Smart board-15 min 2-Lecturer-30 min 3-Doubts & Assignment-10 min	20-01-2026		
18	1	2	Types of tender	Surjit singh,Dhanapat ray Page no.20.5	https://www.youtube.com/results?search_query=Covalent Bonds	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	21-01-2026		
19	5	2	Tender notice	Surjit singh,Dhanapat ray Page no.20.7	https://www.youtube.com/results?search_query=Intrinsic Semiconductors	1-Previous class topic Review-5 min 2- PPT/Smart board-15 min 3-Lecturer-30 min 4-Doubts & Assignment-10 min	24-01-2026		
20	5	2	Preparation of tender document and method of opening of tender	Surjit singh,Dhanapat ray Page no.19.5	https://www.youtube.com/results?search_query=Extrinsic Semiconductors	1-Previous class topic Review-5 min 2- PPT/Smart board-15 min 3-Lecturer- 4-Doubts & Assignment-10 min	25-01-2026		

21	5	2	Quotation.	Surjit singh,Dhanapat ray Page no.19.7	https://www.youtube.com/results?search_query N-Type Materials	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	28-01-2026		
22	5	2	Quotation format	Surjit singh,Dhanapat ray Page no.19,10	https://www.youtube.com/results?search_query P-Type Materials	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	01-02-2026		
LECTURENO.	CO	BTL	TOPIC TO BE COVERED		WEBREFERENCEIFANY	TEACHINGLEARNINGMETHOD	03-02-2026	ACTION DATE	REVIEW BY HOD
23	5	2	Comparison between tender and quotation	Surjit singh,Dhanapat ray Page no.6.5	https://www.youtube.com/results?search_query Minority and Majority Carriers	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	PLAN		
24	5	1	Comparative statement	Surjit singh,Dhanapat ray Page no.6.7	https://www.youtube.com/results?search_query Semi-Conductor Materials	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	DATE		
25			Format comparative statement		https://www.youtube.com/results?search_query	1-Previous class topic Review-5 min 2-Lecturer- 3-Doubts & Assignment-10 min	04-02-2026		
26	2	1	Order format	Surjit singh,Dhanapat ray Page no.14.1	https://www.youtube.com/results?search_query Insulating Materials: Introduction	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	06-03-2026		
27	2	2	Placing of purchasing order	Surjit singh,Dhanapat ray Page no.14.4	https://www.youtube.com/results?search_query General properties of Insulating Materials	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	07-02-2026		
28	2	1	Principles of execution of works	Surjit singh,Dhanapat ray Page no.14.7	https://www.youtube.com/results?search_query Electrical properties	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	08-02-2026		
29	2	1	Planning	Surjit singh,Dhanapat ray Page no.14.8	https://www.youtube.com/results?search_query Visual properties	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	10-02-2026		
30	2	1	organizing	Surjit singh,Dhanapat ray Page no.14.10	https://www.youtube.com/results?search_query Mechanical properties	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	11-02-2026		
31	2	2	Completion of work	Surjit singh,Dhanapat ray Page no.14.12	https://www.youtube.com/results?search_query Ageing	1-Previous class topic Review-5 min 2- PPT/Smart board-15 min 3-Lecturer- 4-Doubts & Assignment-10 min	12-02-2026		

32	2	1	Biling of work	Surjit singh,Dhanapat ray Page no.14.15	https://www.youtube.com/results? search_query	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min			
33	2	1	Non industrial installion	Surjit singh,Dhanapat ray Page no.14.16	https://www.youtube.com/results? search_query Insulating Gases	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min			
34	2	1	Types of Non industrial instalation	Surjit singh,Dhanapat ray Page no.14.18	https://www.youtube.com/results? search_query Commonly used insulating	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	13- 02- 2026		
LECTURENO.	CO	BTL	TOPIC TO BE COVERED	Surjit singh,Dhanapat ray	WEBREFERENCEIFANY	TEACHINGLEARNINGMETHOD	17- 02- 2026	ACTION DATE	REVIEW BY HOD
35			.office instalition	Surjit singh,Dhanapat ray Page no.6.5	https://www.youtube.com/results? search_query	1-Previous class topic Review-5 min 2-Lecturer- 3-Doubts & Assignment-10 min	18- 02- 2026		
36	2	2	Bulding Instalation	Surjit singh,Dhanapat ray Page no.6.8	https://www.youtube.com/results? search_query Dielectric Materials: Introduction Dielectric Constant of Permittivity Polarisation	1-Previous class topic Review-5 min 2- PPT/Smart board-15 min 3-Lecturer- 4-Doubts & Assignment-10 min	19- 02- 2026		
37	2	2	Prepare one estimate of materials required for conduit wiring for small domestic installation of one room and one verandah within 25 m2 with given light, fan & plug points	Surjit singh,Dhanapat ray Page no.6.10	https://www.youtube.com/results? search_query Dielectric Loss	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	PLA N		
38	2	2	Preparation of list of materials of 2BHK as per the civil plan	Surjit singh,Dhanapat ray Page no.6.12	https://www.youtube.com/results? search_query Polarisation	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	DAT E		
39	2	2	circuit breaker, conductor voltage (low, medium, high, EH), live, dead, cut- out	Surjit singh,Dhanapat ray Page no.6.14	https://www.youtube.com/results? search_query Dielectric Loss	1-Previous class topic Review-5 min 2- PPT/Smart board-15 min 2-Lecturer-30 min 3-Doubts & Assignment-10 min	20- 02- 2026		
40	2	2	. conduit, system, danger, Installation		https://www.youtube.com/results? search_query Dielectrics and their Break	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	21- 02- 2026		
41	2	1	earthing system, span, volt, switch gear, Resistivity	Surjit singh,Dhanapat ray Page no.	https://www.youtube.com/results? search_query Properties of Dielectrics	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	24- 02- 2026		
42	2	3	. pipe earthing	Surjit singh,Dhanapat ray Page no.14.8	https://www.youtube.com/results? search_query Applications of Dielectrics	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	25- 02- 2026		
43			determination of size of conductor for overhead	Surjit singh,Dhanapat ray Page no.14.10	https://www.youtube.com/results? search_query	1-Previous class topic Review-5 min 2-Lecturer- 3-Doubts & Assignment-10 min	26- 02- 2026		

44	3	1	CTS wiring their advantages, disadvantages & applications c	Surjit singh,Dhanapat ray Page no.6.8	https://www.youtube.com/results?search_query Magnetic Materials	1-Previous class topic Review-5 min 2- PPT/Smart board-15 min 2-Lecturer-30 min 3-Doubts & Assignment-10 min	28-02-2026		
45	3	1	TRS wiring their advantages, disadvantages	Surjit singh,Dhanapat ray Page no.6.9	https://www.youtube.com/results?search_query	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	2-03-2026		
46	3	2	transmission line, cross arms, pole	Surjit singh,Dhanapat ray Page no.6.10	https://www.youtube.com/results?search_query Diamagnetism	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	02-03-2026		
LECTURENO.	CO	BTL	TOPIC TO BE COVERED		WEBREFERENCEIFANY	TEACHINGLEARNINGMETHOD	03-03-2026	ACTION DATE	REVIEW BY HOD
47	3	2	relating to supply and use of energy: 60, 61, 62, 63, 64, 65, 66, 67,	Surjit singh,Dhanapat ray Page no.24.4	https://www.youtube.com/results?search_query Para magnetism	1-Previous class topic Review-5 min 2- PPT/Smart board-15 min 2-Lecturer-30 min 3-Doubts & Assignment-10 min	06-03-2026		
48	3	2	types of insulators, lightning arresters, danger plates	Surjit singh,Dhanapat ray Page no.6.5	https://www.youtube.com/results?search_query Ferromagnetism	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	07-03-2026		
49	3	4	anti-climbing devices,	Surjit singh,Dhanapat ray Page no.6.7	https://www.youtube.com/results?search_query Magnetization Curve	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	08-03-2026		
50	3	3	clamps, guys and stays, conductors' configurations	Surjit singh,Dhanapat ray Page no.6.8	https://www.youtube.com/results?search_query Hysteresis	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	09-10-2026		
51	3	2	Internal distribution of Electrical Energy	Surjit singh,Dhanapat ray Page no.6.9	https://www.youtube.com/results?search_query Eddy Currents	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	11-04-2026		
52	3	1	Methods of wiring,	Surjit singh,Dhanapat ray Page no.6.10	https://www.youtube.com/results?search_query Curie Point	1-Previous class topic Review-5 min 2- PPT/Smart board-15 min 2-Lecturer-30 min 3-Doubts & Assignment-10 min	15-04-2026		
53	3	2	systems of wiring, wire and cable, conductor materials used in cables,	Surjit singh,Dhanapat ray Page no.21.5	https://www.youtube.com/results?search_query Magneto-striction	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	PLAN		
54	3	1	systems of wiring, wire and cable, conductor materials	Surjit singh,Dhanapat ray Page no.21.6	https://www.youtube.com/results?search_query Soft and Hard magnetic Materials	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	DATE		
55	3	1	overhead line insulators, bird guards,		https://www.youtube.com/results?search_query Soft magnetic materials	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	16-04-2026		

56	3	1	beads of jumpers, jumpers,	Surjit singh,Dhanapat ray Page no.21.8	https://www.youtube.com/results?search_query Hard magnetic	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	17-04-2026		
57	3	1	Required for LT distribution line within load of 100 KW maximum and standard	Surjit singh,Dhanapat ray Page no.21.10	https://www.youtube.com/results?search_query Materials for Special Purposes	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	19-04-2026		
58	3	1	Pole mounted substation	Surjit singh,Dhanapat ray Page no.22.1	https://www.youtube.com/results?search_query Structural Materials	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min			
LECTURENO.	CO	BTL	TOPIC TO BE COVERED		WEB REFERENCEIFANY	TEACHING LEARNING METHOD	21-04-2026	ACTION DATE	REVIEW BY HOD
59	3	1	Preparation of list of materials for a 100KVA(Pole mounted substation)	Surjit singh,Dhanapat ray Page no.22.5	https://www.youtube.com/results?search_query Protective Materials	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	22-04-2026		
60	3	1	Preparation of list of materials for a 100KVA(Plinth mounted substation)	Surjit singh,Dhanapat ray Page no.20.10	https://www.youtube.com/results?search_query Steel tapes, wires and strips	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	23-04-2026		
61	4	1	Problem.2 Prepare and estimate for providing single phase supply of load of 5 KW (light, fan,motor1hp.)	Surjit singh,Dhanapat ray Page no.20.12	https://www.youtube.com/results?search_query Thermocouple materials	1-Previous class topic Review-5 min 2-Lecturer-45 min 3-Doubts & Assignment-10 min	24-05-2026		
62	4	1	Prepare and estimate for providing single phase supply of load of 10 KW (light, fan,Double stored bulding)	Surjit singh,Dhanapat ray Page no.20.15	https://www.youtube.com/results?search_query Fuse and Fuse materials	1-Previous class topic Review-5 min 2-Lecturer-45min 3-Doubts & Assignment-10 min	25-04-2026		

Principal

Faculty

HoD, Electrical Engineering